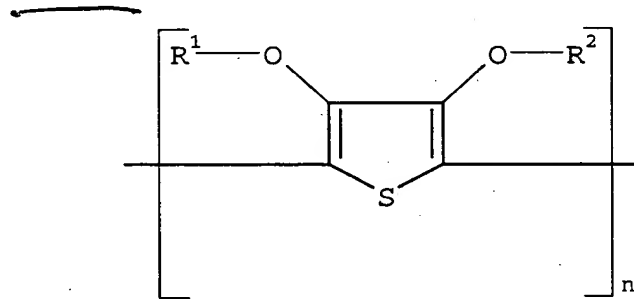


## What is Claimed Is:

1. A material for making an electroconductive pattern, said material comprising a support and a light-exposure differentiable element, characterized in that said light-exposure differentiable element comprises an outermost layer containing a polyanion and a polymer or copolymer of a substituted or unsubstituted thiophene, and optionally a second layer contiguous with said outermost layer; and wherein said outermost layer and/or said optional second layer contains a light-sensitive component capable upon exposure of changing the removability of the exposed parts of said outermost layer relative to the unexposed parts of said outermost layer.

2. Material according to claim 1, wherein said polymer of a substituted or unsubstituted thiophene corresponds to formula (II):

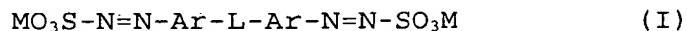


- in which  $n$  is larger than 1 and each of  $R^1$  and  $R^2$  independently represent hydrogen or an optionally substituted  $C_{1-4}$  alkyl group or together represent an optionally substituted  $C_{1-4}$  alkylene group or an optionally substituted cycloalkylene group, preferably an ethylene group, an optionally alkyl-substituted methylene group, an optionally  $C_{1-12}$  alkyl- or phenyl-substituted ethylene group, a 1,3-propylene group or a 1,2-cyclohexylene group.
3. Material according to claim 1, wherein said polyanion is poly(styrene sulphonate).
4. Material according to claim 1, wherein said outermost layer has a surface resistivity lower than  $10^6 \Omega/\text{square}$ .

5. Material according to claim 1, wherein said light-sensitive component capable upon exposure of changing the removability of the exposed parts of said outermost layer relative to the unexposed parts of said outermost layer is a multidiazonium salt or a resin comprising a diazonium salt which reduces the removability of exposed parts of said outermost layer.

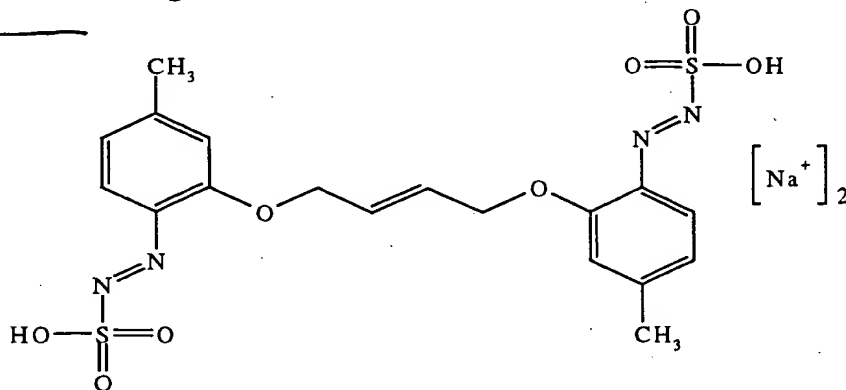
6. Material according to claim 1, wherein said light-sensitive component capable upon exposure of changing the removability of the exposed parts of said outermost layer relative to the unexposed parts of said outermost layer is a bis(aryldiazosulphonate) salt, a tris(aryldiazosulphonate) salt or a tetrakis(aryldiazosulphonate) salt which reduces the removability of exposed parts of said outermost layer.

7. Material according to claim 1, wherein said light-sensitive component capable upon exposure of changing the removability of the exposed parts of said outermost layer relative to the unexposed parts of said outermost layer is a bis(aryldiazosulphonate) salt, which reduces the removability of exposed parts of said outermost layer, according to formula (I):

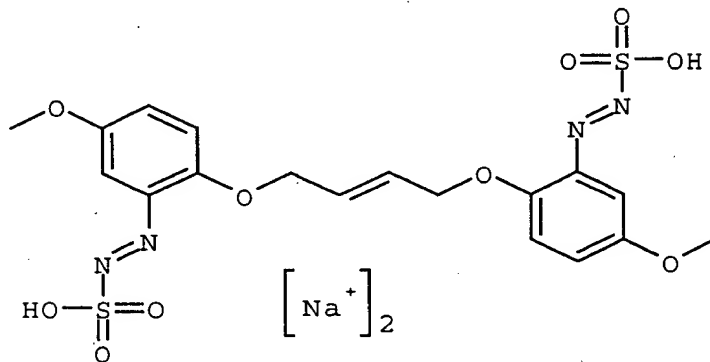
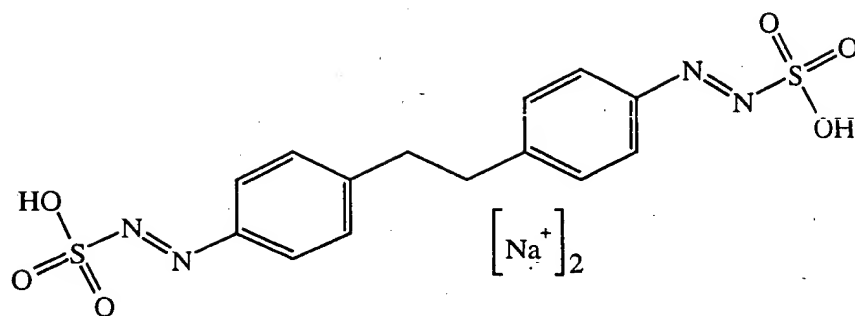


where Ar is a substituted or unsubstituted aryl group, L is a divalent linking group, and M is a cation.

8. Material according to claim 6, wherein said bis(aryldiazosulphonate) salt is selected from the group consisting of



09891649-062601



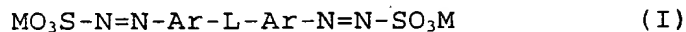
and

9. Material according to claim 1, wherein said light-sensitive component capable upon exposure of changing the removability of the exposed parts of said outermost layer relative to the unexposed parts of said outermost layer is a polymer or copolymer of an aryldiazosulphonate which reduces the removability of exposed parts of said outermost layer.
10. Material according to claim 9, wherein in said light-exposure differentiable element the weight ratio of said polymer or copolymer of an aryldiazosulphonate to said polymer or copolymer of a substituted or unsubstituted thiophene is between 10:200 and 400:200.
11. Material according to claim 1, wherein said light-sensitive component capable upon exposure of changing the removability of the exposed parts of said outermost layer relative to the unexposed parts of said outermost layer is a quinonediazide compound which increases the removability of exposed parts of said outermost layer.
12. Material according to claim 1, wherein said support is treated with a corona discharge or a glow discharge.

TOP SECRET - CONFIDENTIAL

13. Method of making an electroconductive pattern on a support comprising the steps of:
- providing a material for making an electroconductive pattern, said material comprising a support and a light-exposure differentiable element, wherein said light-exposure differentiable element comprises an outermost layer containing a polyanion and a polymer or copolymer of a substituted or unsubstituted thiophene, and optionally a second layer contiguous with said outermost layer; and wherein said outermost layer and/or said optional second layer contains a light-sensitive component capable upon exposure of changing the removability of the exposed parts of said outermost layer relative to the unexposed parts of said outermost layer;
  - image-wise exposing said material thereby obtaining a differentiation of the removability, optionally with a developer, of said exposed and said non-exposed areas of said outermost layer;
  - processing said material, optionally with said developer, thereby removing areas of said outermost layer; and
  - optionally treating said material to increase the electroconductivity of said non-removed areas of said outermost layer.
14. Method according to claim 13, wherein said non-removed areas of said outermost layer have a surface resistivity lower than  $10^6 \Omega/\text{square}$ .
15. Method according to claim 13, wherein said non-removed areas of said outermost layer have a surface resistivity lower than  $10^4 \Omega/\text{square}$ .
16. Method of making an electroconductive pattern on a support without a removal step comprising the steps of:
- providing a material for making an electroconductive pattern, said material comprising a support and a light-exposure differentiable element, characterized in that said light-exposure differentiable element comprises an outermost layer containing a polyanion and a polymer or copolymer of a substituted or unsubstituted thiophene having a surface resistivity lower than  $10^6 \Omega/\text{square}$ , and optionally a second layer contiguous with said outermost layer; and wherein said

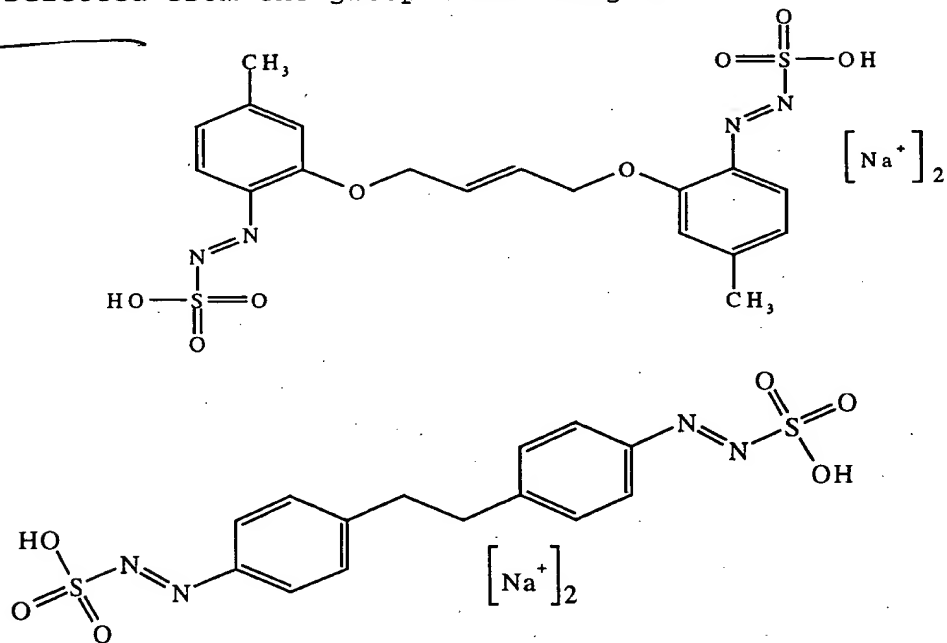
outermost layer and/or said optional second layer contains an aryl diazosulfonate according to formula (I):

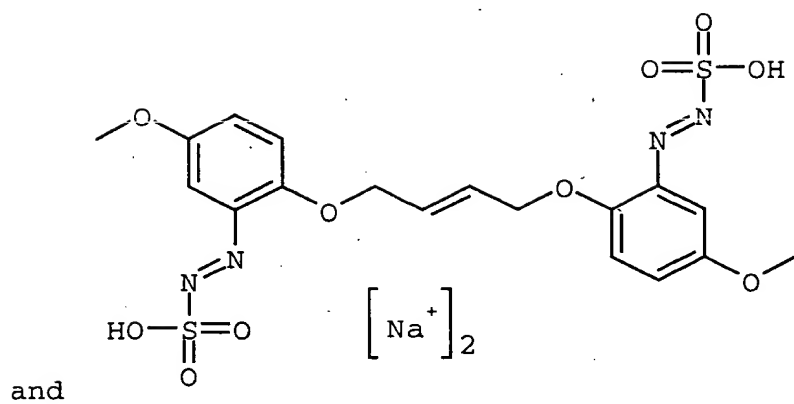


where Ar is a substituted or unsubstituted aryl group, L is a divalent linking group, and M is a cation; capable upon exposure of changing the removability of the exposed parts of said outermost layer relative to the unexposed parts of said outermost layer; and

- image-wise exposing the material thereby obtaining reduction in the conductivity of the exposed areas relative to non-exposed areas, optionally with a developer.

- 15 17. Method of making an electroconductive pattern on a support without a removal step according to claim 16, wherein said bis(aryldiazosulfonate) compound according to formula (I) is selected from the group consisting of





add a!

09891649-062601